

### ECHIDNODES LEAF SPOT OF TILLANDSIA UTRICULATA

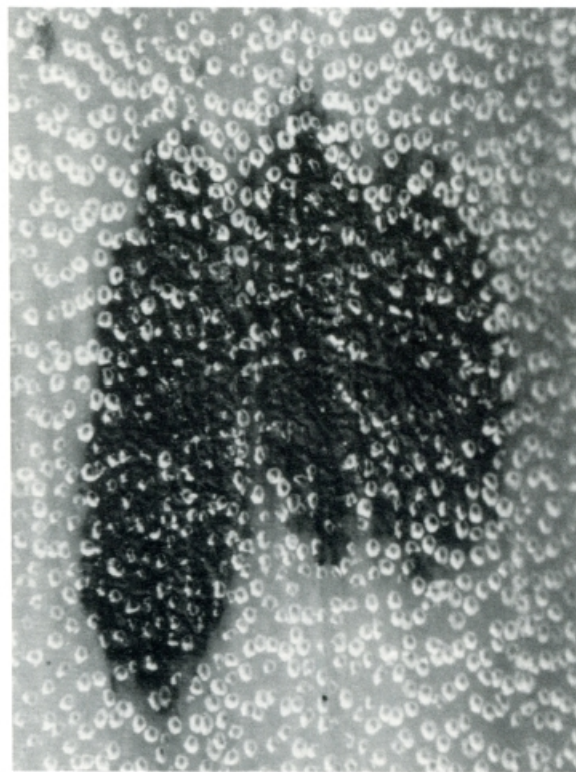
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Tillandsia utriculata L. belongs to the family Bromeliaceae. It is grown as an ornamental plant in greenhouses or outdoors in warm climates (1). In nature, T. utriculata grows as an epiphyte in coastal southeast Georgia and Florida, the West Indies, British Honduras, Mexico, and Venezuela. It can be found from sea level to 1200 m altitude (2,4).

**Symptoms.** Recently, a new leaf spot disease was detected on this host in Florida. The spots are elliptical (Fig. 1), up to 10 mm long x 5 mm wide, dark carbonaceous on one side, either upper or lower, and light brown on the corresponding opposite side. Spots may coalesce (Fig. 2).



**Fig. 1.** Elliptical leaf spots on Tillandsia utriculata caused by Echidnodes bromeliacearum X 1.1. (DPI Photo #87101 by Jeffrey W. Lotz).



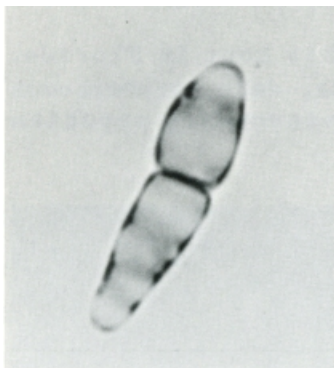
**Fig. 2.** Echidnodes bromeliacearum on Tillandsia utriculata showing dark carbonaceous leaf spots that have coalesced X 8.2. (DPI Photo #87101-22 by Jeffrey W. Lotz).

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**Causal Agent.** Recently, a fungus heretofore not found in Florida was observed on leaf spots of T. utriculata. This fungus, not previously reported on this host, was identified as Echidnodes bromeliacearum (Rehm) Theissen & H. Sydow (5, p. 123) by Dr. M. E. Barr Bigelow of the University of Massachusetts at Amherst. It is an ascomycetous fungus which forms pseudothecia (fruiting bodies) containing thick-walled asci and paraphyses. Ascospores are mostly 1-septate and are constricted at the septum (Fig. 3). They are first hyaline and become brown at maturity. The pseudothecia and contents probably mature in old overwintering leaves. Although the life cycle of the pathogen in mild Florida winters has not been studied, greatest spore release would be expected during wet weather in the spring months.



**Fig. 3.** Ascospore of Echidnodes bromeliacearum X 1,444.  
(DPI Photo #87132-4).

**Control.** No fungicide is specifically labeled for use on T. utriculata. However, if control is desired, benomyl which is EPA-registered for use on ornamentals (3) may be tried starting early in the spring.

**Survey and Detection.** Look for elliptical dark carbonaceous spots on either upper or lower leaf surface and light brown spots on the corresponding opposite surface.

#### **Literature Cited.**

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